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Sequence Listing was accepted.

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Reviewer: Durreshwar Anjum

Timestamp: [year=2007; month=11; day=28; hr=14; min=25; sec=1; ms=587;]

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Application No: 10658752 Version No: 2.0

Input Set:**Output Set:**

Started: 2007-11-08 19:13:23.798
Finished: 2007-11-08 19:13:25.945
Elapsed: 0 hr(s) 0 min(s) 2 sec(s) 147 ms
Total Warnings: 41
Total Errors: 0
No. of SeqIDs Defined: 41
Actual SeqID Count: 41

Error code	Error Description
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W 213	Artificial or Unknown found in <213> in SEQ ID (17)
W 213	Artificial or Unknown found in <213> in SEQ ID (18)
W 213	Artificial or Unknown found in <213> in SEQ ID (19)
W 213	Artificial or Unknown found in <213> in SEQ ID (20)

Input Set:

Output Set:

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Total Warnings: 41
Total Errors: 0
No. of SeqIDs Defined: 41
Actual SeqID Count: 41

Error code

Error Description

This error has occurred more than 20 times, will not be displayed

SEQUENCE LISTING

<110> LOHNING, CORINNA

<120> NOVEL METHODS FOR DISPLAYING (POLY)PEPTIDES/PROTEINS ON
BACTERIOPHAGE PARTICLES VIA DISULFIDE BONDS

<130> 49981-002D

<140> 10658752

<141> 2003-09-10

<150> 09/809,517

<151> 2001-03-15

<150> PCT/EP00/06968

<151> 2000-07-20

<150> EP 99 11 4072.4

<151> 1999-07-20

<150> EP 00 10 3551.8

<151> 2000-02-18

<160> 41

<170> PatentIn Ver. 3.3

<210> 1

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

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Pro Tyr Asp Val Pro Asp Tyr Ala Ser Leu Arg Ser His His His His

1 5 10 15

His His

<210> 2

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 2

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1 5 10

<210> 3
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 3
Asp Tyr Cys Asp Ile Glu Phe
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<210> 4
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 4
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1 5 10 15

<210> 5
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 5
Glu Phe Ser His His His His His His
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<210> 6
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 6
Ser Ala Trp Ser His Pro Gln Phe Glu Lys
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<210> 7
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 7
Thr Met Ala Cys Asp Ile Glu Phe
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<210> 8
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

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Asp Tyr Lys Asp Asp Asp Asp Lys
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<210> 9
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

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Trp Ser His Pro Gln Phe Glu Lys
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<210> 10
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
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peptide

<400> 10
Pro Gly Gly Ser Gly
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<210> 11
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<212> PRT
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<220>
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<400> 11
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1 5

<210> 12
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<212> PRT
<213> Artificial Sequence

<220>
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peptide

<400> 12
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<210> 13
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 13
His His His His His His Cys
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<210> 14
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 14
Cys Ala Gly Pro Tyr Asp Val Pro Asp Tyr Ala Ser Leu Arg Ser His
1 5 10 15

His

<210> 15
<211> 7
<212> PRT
<213> Artificial Sequence

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peptide

<400> 15
Arg Ser Gly Ala Tyr Asp Tyr
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<210> 16
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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peptide

<400> 16
Gln Gln Tyr Ser Ser Phe Pro Leu
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<210> 17
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
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peptide

<400> 17
Phe Asp Pro Phe Phe Asp Ser Phe Phe Asp Tyr
1 5 10

<210> 18
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 18
Gln Ser Tyr Asp Gln Asn Ala Leu Val Glu
1 5 10

<210> 19
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 19
His Gly Tyr Arg Lys Tyr Tyr Thr Asp Met Phe Asp Val
1 5 10

<210> 20
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 20
His Gln Val Tyr Ser Thr Ser Pro
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<210> 21
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 21
Phe Pro Tyr Thr Tyr His Gly Phe Met Asp Asn
1 5 10

<210> 22
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 22
Gln Ser Tyr Asp Ser Gly Asn Leu
1 5

<210> 23
<211> 434
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
protein sequence

<400> 23
Met Lys Lys Thr Ala Ile Ala Ile Ala Val Ala Leu Ala Gly Phe Ala
1 5 10 15
Thr Val Ala Gln Ala Asp Tyr Cys Asp Ile Glu Phe Ala Glu Thr Val
20 25 30
Glu Ser Cys Leu Ala Lys Pro His Thr Glu Asn Ser Phe Thr Asn Val
35 40 45
Trp Lys Asp Asp Lys Thr Leu Asp Arg Tyr Ala Asn Tyr Glu Gly Cys
50 55 60
Leu Trp Asn Ala Thr Gly Val Val Val Cys Thr Gly Asp Glu Thr Gln
65 70 75 80
Cys Tyr Gly Thr Trp Val Pro Ile Gly Leu Ala Ile Pro Glu Asn Glu
85 90 95
Gly Gly Gly Ser Glu Gly Gly Gly Ser Glu Gly Gly Gly Ser Glu Gly
100 105 110
Gly Gly Thr Lys Pro Pro Glu Tyr Gly Asp Thr Pro Ile Pro Gly Tyr
115 120 125
Thr Tyr Ile Asn Pro Leu Asp Gly Thr Tyr Pro Pro Gly Thr Glu Gln
130 135 140
Asn Pro Ala Asn Pro Asn Pro Ser Leu Glu Glu Ser Gln Pro Leu Asn
145 150 155 160
Thr Phe Met Phe Gln Asn Asn Arg Phe Arg Asn Arg Gln Gly Ala Leu
165 170 175
Thr Val Tyr Thr Gly Thr Val Thr Gln Gly Thr Asp Pro Val Lys Thr
180 185 190
Tyr Tyr Gln Tyr Thr Pro Val Ser Ser Lys Ala Met Tyr Asp Ala Tyr
195 200 205
Trp Asn Gly Lys Phe Arg Asp Cys Ala Phe His Ser Gly Phe Asn Glu
210 215 220
Asp Pro Phe Val Cys Glu Tyr Gln Gly Gln Ser Ser Asp Leu Pro Gln
225 230 235 240
Pro Pro Val Asn Ala Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly

245	250	255
Ser Glu Gly Gly Gly Ser Glu Gly Gly Gly Ser Glu Gly Gly Gly Ser		
260	265	270
Glu Gly Gly Gly Ser Gly Gly Gly Ser Gly Ser Gly Asp Phe Asp Tyr		
275	280	285
Glu Lys Met Ala Asn Ala Asn Lys Gly Ala Met Thr Glu Asn Ala Asp		
290	295	300
Glu Asn Ala Leu Gln Ser Asp Ala Lys Gly Lys Leu Asp Ser Val Ala		
305	310	315
Thr Asp Tyr Gly Ala Ala Ile Asp Gly Phe Ile Gly Asp Val Ser Gly		
325	330	335
Leu Ala Asn Gly Asn Gly Ala Thr Gly Asp Phe Ala Gly Ser Asn Ser		
340	345	350
Gln Met Ala Gln Val Gly Asp Gly Asp Asn Ser Pro Leu Met Asn Asn		
355	360	365
Phe Arg Gln Tyr Leu Pro Ser Leu Pro Gln Ser Val Glu Cys Arg Pro		
370	375	380
Tyr Val Phe Gly Ala Gly Lys Pro Tyr Glu Phe Ser Ile Asp Cys Asp		
385	390	395
Lys Ile Asn Leu Phe Arg Gly Val Phe Ala Phe Leu Leu Tyr Val Ala		
405	410	415
Thr Phe Met Tyr Val Phe Ser Thr Phe Ala Asn Ile Leu Arg Asn Lys		
420	425	430
Glu Ser		

<210> 24

<211> 219

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
protein sequence

<400> 24

Met Lys Lys Thr Ala Ile Ala Ile Ala Val Ala Leu Ala Gly Phe Ala
1 5 10 15

Thr Val Ala Gln Ala Asp Tyr Cys Asp Ile Glu Phe Asn Ala Gly Gly
20 25 30

Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser Glu Gly Gly Gly Ser Glu
35 40 45

Gly Gly Gly Ser Glu Gly Gly Gly Ser Glu Gly Gly Gly Ser Gly Gly
 50 55 60

Gly Ser Gly Ser Gly Asp Phe Asp Tyr Glu Lys Met Ala Asn Ala Asn
 65 70 75 80

Lys Gly Ala Met Thr Glu Asn Ala Asp Glu Asn Ala Leu Gln Ser Asp
 85 90 95

Ala Lys Gly Lys Leu Asp Ser Val Ala Thr Asp Tyr Gly Ala Ala Ile
 100 105 110

Asp Gly Phe Ile Gly Asp Val Ser Gly Leu Ala Asn Gly Asn Gly Ala
 115 120 125

Thr Gly Asp Phe Ala Gly Ser Asn Ser Gln Met Ala Gln Val Gly Asp
 130 135 140

Gly Asp Asn Ser Pro Leu Met Asn Asn Phe Arg Gln Tyr Leu Pro Ser
 145 150 155 160

Leu Pro Gln Ser Val Glu Cys Arg Pro Phe Val Phe Gly Ala Gly Lys
 165 170 175

Pro Tyr Glu Phe Ser Ile Asp Cys Asp Lys Ile Asn Leu Phe Arg Gly
 180 185 190

Val Phe Ala Phe Leu Leu Tyr Val Ala Thr Phe Met Tyr Val Phe Ser
 195 200 205

Thr Phe Ala Asn Ile Leu Arg Asn Lys Glu Ser
 210 215

<210> 25
 <211> 432
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 protein sequence

<400> 25
 Met Lys Lys Leu Leu Phe Ala Ile Pro Leu Val Val Pro Phe Tyr Ser
 1 5 10 15
 His Ser Thr Met Ala Cys Asp Ile Glu Phe Ala Glu Thr Val Glu Ser
 20 25 30
 Cys Leu Ala Lys Pro His Thr Glu Asn Ser Phe Thr Asn Val Trp Lys
 35 40 45
 Asp Asp Lys Thr Leu Asp Arg Tyr Ala Asn Tyr Glu Gly Cys Leu Trp
 50 55 60

Asn	Ala	Thr	Gly	Val	Val	Val	Cys	Thr	Gly	Asp	Glu	Thr	Gln	Cys	Tyr	65	70	75	80
Gly	Thr	Trp	Val	Pro	Ile	Gly	Leu	Ala	Ile	Pro	Glu	Asn	Glu	Gly	Gly	85	90	95	
Gly	Ser	Glu	Gly	Gly	Gly	Ser	Glu	Gly	Gly	Gly	Ser	Glu	Gly	Gly	Gly	100	105	110	
Thr	Lys	Pro	Pro	Glu	Tyr	Gly	Asp	Thr	Pro	Ile	Pro	Gly	Tyr	Thr	Tyr	115	120	125	
Ile	Asn	Pro	Leu	Asp	Gly	Thr	Tyr	Pro	Pro	Gly	Thr	Glu	Gln	Asn	Pro	130	135	140	
Ala	Asn	Pro	Asn	Pro	Ser	Leu	Glu	Glu	Ser	Gln	Pro	Leu	Asn	Thr	Phe	145	150	155	160
Met	Phe	Gln	Asn	Asn	Arg	Phe	Arg	Asn	Arg	Gln	Gly	Ala	Leu	Thr	Val	165	170	175	
Tyr	Thr	Gly	Thr	Val	Thr	Gln	Gly	Thr	Asp	Pro	Val	Lys	Thr	Tyr	Tyr	180	185	190	
Gln	Tyr	Thr	Pro	Val	Ser	Ser	Lys	Ala	Met	Tyr	Asp	Ala	Tyr	Trp	Asn	195	200	205	
Gly	Lys	Phe	Arg	Asp	Cys	Ala	Phe	His	Ser	Gly	Phe	Asn	Glu	Asp	Pro	210	215	220	
Phe	Val	Cys	Glu	Tyr	Gln	Gly	Gln	Ser	Ser	Asp	Leu	Pro	Gln	Pro	Pro	225	230	235	240
Val	Asn	Ala	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Ser	Glu	245	250	255	
Gly	Gly	Gly	Ser	Glu	Gly	Gly	Gly	Ser	Glu	Gly	Gly	Gly	Ser	Glu	Gly	260	265	270	
Gly	Gly	Ser	Gly	Gly	Gly	Ser	Gly	Ser	Gly	Asp	Phe	Asp	Tyr	Glu	Lys	275	280	285	
Met	Ala	Asn	Ala	Asn	Lys	Gly	Ala	Met	Thr	Glu	Asn	Ala	Asp	Glu	Asn	290	295	300	
Ala	Leu	Gln	Ser	Asp	Ala	Lys	Gly	Lys	Leu	Asp	Ser	Val	Ala	Thr	Asp	305	310	315	320
Tyr	Gly	Ala	Ala	Ile	Asp	Gly	Phe	Ile	Gly	Asp	Val	Ser	Gly	Leu	Ala	325	330	335	
Asn	Gly	Asn	Gly	Ala	Thr	Gly	Asp	Phe	Ala	Gly	Ser	Asn	Ser	Gln	Met	340	345	350	
Ala	Gln	Val	Gly	Asp	Gly	Asp	Asn	Ser	Pro	Leu	Met	Asn	Asn	Phe	Arg	355	360	365	

Gln Tyr Leu Pro Ser Leu Pro Gln Ser Val Glu Cys Arg Pro Tyr Val
370 375 380

Phe Gly Ala Gly Lys Pro Tyr Glu Phe Ser Ile Asp Cys Asp Lys Ile
385 390 395 400

Asn Leu Phe Arg Gly Val Phe Ala Phe Leu Leu Tyr Val Ala Thr Phe
405 410 415

Met Tyr Val Phe Ser Thr Phe Ala Asn Ile Leu Arg Asn Lys Glu Ser
420 425 430

<210> 26

<211> 434

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
protein sequence

<400> 26

Met Lys Lys Thr Ala Ile Ala Ile Ala Val Ala Leu Ala Gly Phe Ala
1 5 10 15

Thr Val Ala Gln Ala Asp Tyr Cys Asp Ile Glu Phe Ala Glu Thr Val
20 25 30

Glu Ser Cys Leu Ala Lys Pro His Thr Glu Asn Ser Phe Thr Asn Val
35 40 45

Trp Lys Asp Asp Lys Thr Leu Asp Arg Tyr Ala Asn Tyr Glu Gly Cys
50 55 60

Leu Trp Asn Ala Thr Gly Val Val Val Cys Thr Gly Asp Glu Thr Gln
65 70 75 80

Cys Tyr Gly Thr Trp Val Pro Ile Gly Leu Ala Ile Pro Glu Asn Glu
85 90 95

Gly Gly Gly Ser Glu Gly Gly Gly Ser Glu Gly Gly Gly Ser Glu Gly
100 105 110

Gly Gly Thr Lys Pro Pro Glu Tyr Gly Asp Thr Pro Ile Pro Gly Tyr
115 120 125

Thr Tyr Ile Asn Pro Leu Asp Gly Thr Tyr Pro Pro Gly Thr Glu Gln
130 135 140

Asn Pro Ala Asn Pro Asn Pro Ser Leu Glu Glu Ser Gln Pro Leu Asn
145 150 155 160

Thr Phe Met Phe Gln Asn Asn Arg Phe Arg Asn Arg Gln Gly Ala Leu

				165					170					175					
Thr	Val	Tyr	Thr	Gly	Thr	Val	Thr	Gln	Gly	Thr	Asp	Pro	Val	Lys	Thr				
				180				185					190						
Tyr	Tyr	Gln	Tyr	Thr	Pro	Val	Ser	Ser	Lys	Ala	Met	Tyr	Asp	Ala	Tyr				
		195					200					205							